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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,135	04/25/2006	Martin Vorbach	2885/98	9404
26646	7590	11/16/2007		
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER ALROBAYE, IDRIS N	
			ART UNIT 2183	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/561,135

Applicant(s)

VORBACH ET AL.

Examiner

Idriss N. Alrobaye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/15/05; 10/29/07.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to communications through the applicant's application filed on 10/29/2007.
2. Claims 1-7 presented for examination. Claims 8-11 cancelled.

### ***Election/Restrictions***

3. Applicant's election without traverse of group I, claims 1-7 in the reply filed on 10/29/2007 is acknowledged. Claims 8-11 are withdrawn from further consideration.

### ***Information Disclosure Statement***

4. The information disclosure statement filed 10/29/2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not all been considered.

The documents that have not been provided or not in English are crossed out in the IDS. In order to consider those documents, they must be in English or at least an abstract and a legible copy must be provided.

### ***Specification***

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.

- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

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- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

6. The spacing of the lines of the specification is such as to make reading difficult.

New application papers with lines 1½ or double spaced on good quality paper are required.

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7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

9. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter. The specification language as currently recited is incoherent and replete with grammatical errors.

### ***Drawings***

10. The drawings are objected to because they're not visually clear, it's hard to read the number or the naming of the components. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures

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must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

11. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because it depends on unknown claim and unclear which claim its dependent on. See MPEP § 608.01(n). Furthermore, since claim 6 is improper, it will not be treated on the merits (see MPEP 608.01(n) "*claim should normally be objected to and not treated on the merits*")

12. Claims 1-2, 5-7, uses acronyms such as "DFP, DSP, XPP, etc". These acronyms must be written out in at least the independent claims. For instance, DSP should be written Digital Signal Processing (DSP).



13. The claims are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

14. As per claims 1-7, the claims recite "preferrably", it should be "preferably".

***Claim Rejections - 35 USC § 112***

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

17. Regarding claims 1-2, 4-7, the phrases "for example", "such as", "e.g." "and/or" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

18. Regarding claims 1-2, 4-5, 7, the phrases "and the like", "chaameleon-technology-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

19. Claim 2 recites the limitation "wherein the input and / or output between", there is insufficient antecedent basis for the "input and / or output" in the claim.

20. Claim 6 recites "within the at least two units that is not strictly synchronous", there is insufficient antecedent basis for this limitation in the claim.

21. Claims 1-7 provides for the use of "processing data", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

22. Claim 1-2, 7 recites "a method", however the claims appear to be directed to an apparatus because the claims recites only structure rather than steps which are required for a method.

23. Claims 1-7 recites "and / or", it's indefinite and unclear of what the applicant meant. For the purpose of prosecution, the examiner interprets "and / or" as OR and only considers the other part of the OR statement as optional. Further, optional statements are not giving any patentable weight.

24. Several claims recites "(conventional)", the term conventional is vague and unclear. It's also in parenthesis, thus it's confusing of what the applicant's intent of the term conventional. Appropriate clarification and correction is required.

25. Claims 3-4, 6, 7 recites the following phrases "any of the previous claims", "according to the previous claim", it's vague and unclear of which claims it's referring to. Appropriate clarification and correction is required.

26. **The examiner have only shown several errors with the respect to the specification and claims, however there appears to be much more errors. Thus, due to many rejections, objections and errors in the claim language and the specification, it is requested that the applicant re-writes the claims, the specification and to replace the drawing in order to receive a proper and more accurate prosecution.**

***Claim Rejections - 35 USC § 101***

27. Claims 1-2, 4, 7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

28. As per claims 1-2, 4, and 7, the claims are interpreted to only contain structure without any steps to perform specific functionalities. The claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally

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occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result. Specifically the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having a real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter fails to provide any result.

To possibly overcome this rejection, the examiner suggests modifying the method claims to an apparatus claims because the claims recite structures but no steps provided.

29. Initially considered 35 U.S.C. 101 rejection for claims 3. However, after closely looking at the claim, the claim appears to produce real world result but requires clarifications.

30. As for claim 3, since the claim language is vague and unclear, it is very hard to acquaint with whether the applicant is claiming a step or a structure. The examiner interpreted the claim language as a step for transferring data, although clarification of the claim is required (see 35 USC 112 rejections above). Initially the examiner thought that there is a 101 issue with regards to a tangible result. However, looking closely at the claim language, it appears that the claim is transferring data between units, which appears to one of ordinary skill in the art as a real world result. Although, the examiner

interpreted the claim to be a transferring step, clarification of the claim language is required.

***Claim Rejections - 35 USC § 102***

31. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

32. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by “The >S<puter: A Novel Microarchitecture Model for Execution inside Superscalar and VLIW Processors Using Reconfigurable Hardware” (hereinafter Siemers).

33. As per claim 1, Siemers teaches a method of coupling at least one (conventional) unit processing data in a sequential manner, e.g. a CPU, von-Neumann-Processor and/or microcontroller, the (conventional) unit for data processing comprising an instruction pipeline (Siemers, page 2, section 2 and Fig. 1), and an array for processing data comprising a plurality of data processing cells (Siemers, page 3-4, section 3, s-paradigm-unit and Fig. 3), e.g. a preferably coarse grain and/or preferably runtime reconfigurable data processor, FPGA, DFP, DSP, XPP or chaemeleon-technology-like data processing fabric, wherein the array is coupled to the instruction pipeline (Siemers, page 3-4, and Fig. 1 and 3).

34. As per claim 2, Siemers further teaches a method in particular according to claim 1, wherein the input and/or output between the at least one (conventional) unit processing data in a sequential manner, e.g. a CPU, von-Neumann-Processor, microcontroller, and an array for processing data comprising a plurality of data processing cells, e.g. a runtime and/or reconfigurable data processor, DFP, DSP, XPP or chaemeleon-technology-like data processing fabric, wherein data is transferred via at least one data path being provided there between comprising at least one FIFO so as to allow for a less tight coupling and/or data processing within the at least two units that is not strictly synchronous (Siemers, Fig. 1-3, and pages 3-4 and page 7).

35. As per claim 3, Siemers further teaches method according to any of the previous claims wherein data is transferred via at least one data path that allows for transfer of data between units not being transferred through a register (Siemers, Fig. 1-3, 7 and pages 3-4 and section 4).

36. As per claim 4, Siemers further teaches a method according to any of the previous claims wherein a path for the transferal of status information and/or event information such as flags, overflow, carry and the like is provided between the (conventional) unit for data processing and the at least one array for processing data (Siemers, Fig. 1-3, 7 and section 4, status flags).

37. As per claims 5, Siemers teaches a device for processing data comprising at least one (conventional) unit processing data in a sequential manner, e.g. a CPU, von-Neumann-Processor and/or microcontroller, the (conventional) unit for data processing comprising an instruction pipeline (Siemers, page 2, section 2 and Fig. 1), and, an array for processing data comprising a plurality of data processing cells (Siemers, page 3-4, section 3, s-paradigm-unit and Fig. 3), e.g. a runtime and/or reconfigurable data processor, DFP, DSP, XPP or chaemeleon-technology-like data processing fabric, wherein the array is coupled to the instruction pipeline (Siemers, page 3-4, and Fig. 1 and 3).

38. As per claim 6, since the claim is in improper form because it depend on unknown claim and unclear which claim it depends on. The claim is not treated on the merits (see MPEP 608.01(n) "*claim should normally be objected to and not treated on the merits*")

39. As per claim 7, Siemers teaches a method of at least one (conventional) unit processing data in a sequential manner (Siemers, page 2, section 2 and Fig. 1), e.g. a CPU, von-Neumann-processor, microcontroller, being preferrably adapted for data processing to any of the previous methods and or according to a previously claimed devices the (conventional) unit for data processing preferably comprising an instruction pipeline and an array for processing data comprising a plurality of data processing cells (Siemers, pages 3-4, section 3, "s-Paradigm-Unit" and Fig. 3), e.g. a runtime and/or

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reconfigurable data processor, DFP, DSP, XPP or chaameleon-technology-like data processing fabric, wherein a path allowing for block data transfer is provided from the data cache and/or other data source and the array (Siemers, page 3, paragraph 3 and Fig. 1).

### ***Conclusion***

40. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Idriss N. Alrobaye whose telephone number is 571-270-1023. The examiner can normally be reached on Mon-Fri from 8:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on 571-272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

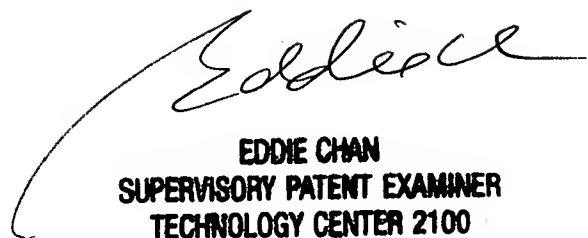
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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